REMARKS

Claims 1 to 12 and 15 to 19 are now pending.

Reconsideration is respectfully requested based on the following.

The Office Action has rejected claims 1 to 12 and 15 to 19 under 25 U.S.C. 102(b) as anticipated by the U.S. Patent No. 6,141,421 ("Takaragi") reference.

As regards the anticipation rejections of the claims, to reject a claim under 35 U.S.C. § 102, the Office must demonstrate that each and every claim feature is identically described or contained in a single prior art reference. (See *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991)). As explained herein, it is respectfully submitted that the Office Actions to date do not meet this standard, for example, as to all of the features of the claims. Still further, not only must each of the claim features be identically described, an anticipatory reference must also enable a person having ordinary skill in the art to practice the claimed subject matter. (See *Akzo, N.V. v. U.S.I.T.C.*, 1 U.S.P.Q.2d 1241, 1245 (Fed. Cir. 1986)).

As further regards the anticipation rejections, to the extent that the Office Action may be relying on the inherency doctrine, it is respectfully submitted that to rely on inherency, the Office must provide a "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics *necessarily* flows from the teachings of the applied art." (See M.P.E.P. § 2112; emphasis in original; and see *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Int'f. 1990)). Thus, the M.P.E.P. and the case law make clear that simply because a certain result or characteristic may occur in the prior art does not establish the inherency of that result or characteristic.

As to claim 1, it is respectfully submitted that the "Takaragi" reference does not identically disclose (or suggest) the feature in which:

> *successive bytes during encryption are provided with an index i, where i = 0, 1, 2, . . .,*
> *an encrypted byte n* is formed from an unencrypted byte n according to the following, a starting value n-1 being used for decryption and encryption:*

$$n_{-1} \equiv S_o$$

$$n_i^* = \left(n_i <<< \sum_{j=0}^{i} n_{j-1}^* \right) \oplus S_{h\left(\sum_{j=0}^{i} n_{j-1}^* \right)}$$

,

an unencrypted byte n is formed from an encrypted byte n according to
the following:*

$$n_i = \left(n_i^* \oplus S_h\!\left(\sum_{j=0}^{i} n_{j-1}^* \right) \right) >>> \sum_{j=0}^{i} n_{j-1}^*$$

The Final Office Action conclusorily asserts that "Takaragi" (col. 9, lines 30-45) discloses the feature of "cyclically shifting bits and exclusive OR operations". Even if "Takaragi" may refer to how a cyclical shift of bits and an exclusive OR operation works, it does not identically disclose (or even suggest) the above cited equations for data encryption and decryption, as provided for in the context of the claimed subject matter. Other than referring to the use of two basic and fundamental binary operations, "Takaragi" (col. 9, lines 21-29) does not identically disclose (or even suggest) the above cited equations, as provided for in the context of the presently claimed subject matter.

The Office conclusorily asserts that "the equation is irrelevant, since "Takaragi" teaches what the equation tries to accomplish, encrypt and decrypt information." (Final Office Action, ¶ 5). The equation is not "irrelevant" but is a feature of the claim that must be "identically described or contained in a single prior art reference." The encryption/ decryption method of "Takaragi", which refers to XORs and bit-sifters, simply does not anticipate or render obvious the specific features of the presently claimed subject matter. The presently claimed subject matter reflects a new data encryption method *using the encryption history*, which is not identically disclosed (or even suggested) by the "Takaragi" reference.

The equations of the claimed subject matter accurately describe and claim part of a novel encryption method in which each encrypted unit relies on the encryption value of prior units.

The Final Office Action conveniently suggests that "with the richness of the English language, perhaps an explanation of what the equation does should replace said equation in the body of the claim." In fact, data encryption and decryption is a mathematically based operation and as "rich" as the English language may be, the mathematical formulas provided are the most accurate and appropriate way of "particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention."

The Final Office Action conclusorily asserts that "according to the specification, the operations of the equations are nothing more, nothing less, than rotation to the left and rotation to the right, and exclusive OR (see page 5)." (Final Office Action, ¶ 5). In fact, the

specification discloses that those three operations are used by the specific method, and then (at the end of page 5 into page 6) describes the equations of the claimed subject matter.

The Final Office Action further states that "accordingly, "Takaragi"'s operations of 'cyclically shifting and x-OR operations' (see previous Office Action) correctly map to the claimed subject matter. In other words, the equations encrypt by rotating to the left and then xoring, and decrypt by xoring and then rotating to the right." (Final Office Action, ¶ 5). The present claims -- and not "Takaragi" -- present a new and nonobvious way to encrypt a stream of data based on prior bytes of the stream. The "Takaragi" encryption method, even if it may be using XORs and bit-shifting, does not identically disclose (or even suggest) these specific features, and therefore does not and cannot anticipate the present claims.

Also, to be clear Applicant simply does not admit or agree that "Takaragi" provides a basic architecture to implement the claimed subject matter. In particular, "Takaragi", does not identically disclose (nor even suggest) the specific implementation of data encryption of the present claims. Absolutely nothing in "Takaragi" even begins to anticipate (or render obvious) the novel encryption method of the claimed subject matter.

It is also respectfully submitted that the "Takaragi" reference does not identically disclose (or even suggest) the feature in which "no byte-wise allocation between input and output data occurs", as provided for in the context of the claimed subject matter. The Final Office Action asserts that "Takaragi" at col. 9, lines 43-47, discloses no byte-wise allocation because it states that "the 64-bit input data X_2 and the 32-bit input data Y_2 is expanded to data of total 128 bits." Thus even if "Takaragi" may concern byte-wise allocation, it does not identically disclose (or even suggest) the claim feature in which "no byte-wise allocation between input and output data occurs."

Additionally, it is respectfully submitted that the "Takaragi" reference does not identically disclose (or suggest) the feature in which "decrypting the data that had been encrypted in the programming unit using a second key provided in the control unit," as provided for in the context of the claimed subject matter. In Figure 20 (element 2017) it seems plain that the key is provided in the data stream, and in Figure 19 (element 1905) and Figure 18 (element 1802), it is plain that the key is external to element 1901 "Decode and Expansion Function" and element 1801 "Decoder". In "Takaragi", col. 14, line 59 states that the "a key 1905 is inputted", and is provided *to* the decoder. This does not identically disclose (or even suggest) the feature of "provided *in* the control unit". The Final Office Action claims that "fig. 19 is a function that resides in the decoder of fig. 18, and therefore

the key is in the decoder. In fact, Fig. 19 is an expanded view of a function of Fig. 18 (see "Takaragi", brief description of the drawings). Element 1901 of Fig. 19 is in the decoder of element 1801 of Fig. 18, but elements 1902, 1920, and 1905 are plainly outside the decoder 1801 of Fig. 18. The key elements 1905 and 1802 are plainly outside the decoder, since they are provided to the decoder.

For at least these reasons, the reference does not identically disclose (or suggest) the above-discussed features of the claimed subject matter, so that claim 1 is allowable, as are its dependent claims 2 to 6 and 17.

Claim 7 includes features like those of claim 1 and is therefore allowable for essentially the same reasons, as are its dependent claims 8 to 10 and 18.

Claims 11 (and dependent claim 19), 15, and 16 include like those of claim 1, and are therefore allowable for essentially the same reasons.

It is therefore respectfully submitted that claims 1 to 12 and 15 to 19 are allowable.

Conclusion

In view of the foregoing, it is believed that the rejections (and any objections) have been obviated, and that claims 1 to 12 and 15 to 19 are allowable. It is therefore respectfully requested that the rejections (and any objections) be withdrawn, and that the present application issue as early as possible.

Respectfully submitted,
KENYON & KENYON LLP

Dated: _____9/9/2008_____

By: _____
Gerard A. Messina
(Reg. No. 35,952)

One Broadway
New York, New York 10004
(212) 425-7200

CUSTOMER NO. 26646